



National Transportation Safety Board Aviation Accident Final Report

Location:	DUO, WV	Accident Number:	NYC97FA021
Date & Time:	11/26/1996, 1208 EST	Registration:	N73CP
Aircraft:	Cessna 414	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

Shortly after takeoff, the pilot contacted Charleston Approach Control to pick up his IFR clearance to the destination. The controller instructed the pilot to maintain VFR and he then attempted to coordinate with Washington Center for the clearance. The controller subsequently was unable to establish radar contact with the flight and he also lost radio contact with the pilot. The aircraft collided with the upslope of high terrain in weather conditions comprised of fog, sleet, and snow. The accident site was about 14 miles from the departure point. Toxicological testing of the pilot revealed benzoyllecgonine.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate inflight decision which resulted in VFR flight into instrument meteorological conditions and his failure to maintain adequate terrain clearance which resulted in an inflight collision with terrain. The low ceiling was a factor.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings

1. (F) WEATHER CONDITION - LOW CEILING
2. (C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
3. USE OF INAPPROPRIATE MEDICATION/DRUG - PILOT IN COMMAND
4. (C) VFR FLIGHT INTO IMC - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: CRUISE - NORMAL

Findings

5. (F) TERRAIN CONDITION - HIGH TERRAIN
6. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On November 26, 1996, approximately 1208 eastern standard time, a Cessna 414, N73CP, was destroyed when it collided with Beech Knob Mountain during cruise flight near Duo, West Virginia. The certificated commercial pilot and one passenger, the sole occupants, sustained fatal injuries. Instrument meteorological conditions prevailed and an IFR flight plan was filed. The business flight was conducted under 14 CFR Part 91, and originated at Summersville, West Virginia (I07), approximately 1200, with an intended destination of Waynesboro, Virginia (W13).

According to Air Traffic Control (ATC) records from the Federal Aviation Administration (FAA), the pilot of N73CP contacted Charleston Approach Control, at 1202, and advised he was "off Summersville." In a written statement, the Charleston Tower Control Specialist reported:

"N73CP departed Summersville Airport and called me airborne VFR requesting his IFR clearance. I issued him a code and told him to maintain VFR ... I asked N73CP his on course heading (100 degrees) and then coordinated with Washington Center for his IFR clearance. I was not able to radar identify the aircraft and I lost radio contact with him before I could issue the IFR clearance."

At 1207, ATC requested an altitude report from N73CP, and received no response. Subsequent attempts to contact the airplane were unsuccessful. Attempts to identify the airplane on radar were also unsuccessful.

The Indianapolis Air Traffic Control Center reported establishing radar contact with N73CP, and plotting its position two separate times before radar contact was lost. The last radar position placed the airplane at 4,100 feet in the immediate vicinity of a mountain top, 4,140 feet in height, about 14 miles southeast of the airport.

A witness reported to the West Virginia State Police:

"I was at my home on Beech Knob. The weather was snow, sleet, and heavy fog. It was so foggy, I couldn't see my bird bath out back. Between 1200 and 1205, I was in the back part of the house. At that time, it sounded as though an airplane had gone through the sound barrier. It was that loud."

According to the West Virginia State Police, the pilot had flown the route between I07 and W13 for the past 10 years approximately twice a week. The purpose of these flights was to transport the aircraft owner between places of business in Summersville, West Virginia, and Waynesboro, Virginia.

The airplane entered trees on ascending terrain. The accident occurred during the hours of daylight approximately 38 degrees 07.03 minutes north latitude, and 80 degrees 36.25 minutes west longitude.

PILOT INFORMATION

The pilot held a Commercial Pilot and Flight Instructor Certificate; both with ratings for airplane single engine land, multi-engine land, instrument airplane and rotorcraft-helicopter. He also held a Mechanic Certificate with ratings for airframe and powerplant.

His most recent FAA Second Class Medical Certificate was issued on November 8, 1996.

The pilot's logbook was not recovered. However, the pilot reported having 8,000 hours of flight experience at the time of his most recent medical exam. A copy of the pilot's resume dated September 11, 1990, reflected a total flight experience of 4,870 hours. He reported 2,720 hours of multi-engine experience, and 780 hours in actual instrument meteorological conditions.

A company log sheet discovered in the aircraft wreckage, reflected that the pilot accumulated 20.7 hours of flight time in N73CP between November 5, 1996, and November 23, 1996. Flight experience in actual instrument meteorological conditions during that period was 3.4 hours.

METEOROLOGICAL INFORMATION

The pilot called the Elkins Flight Service Station, at 1017, for a weather briefing for "...Charleston, Beckley, and Shenandoah Valley." The Air Traffic Control Specialist who briefed the pilot stated:

"I replied with the requested items and the reported adverse conditions of IFR conditions, variable IFR conditions, obscuration to vision, bases and tops of obscuration, icing and gusting surface winds."

A weather observation at Beckley, West Virginia, at 1151, reported; ceiling 600 feet overcast with 6 miles visibility, wind from 340 at 11 knots gusting to 17 knots, light rain and mist.

A weather observation at Beckley, West Virginia, at 1251, reported; ceiling 600 feet overcast with 4 miles visibility, ice pellets and mist. The observation reported snow beginning and ending several times during the previous hour.

Two residents of Beech Knob reported sleet, snow, and heavy fog at the time of the accident. One witness reported to the West Virginia State Police:

"...the weather was very foggy, 20 feet visibility or less. There was ice on the trees and the wind was blowing very hard."

WRECKAGE INFORMATION

The airplane wreckage was examined at the accident site on November 29, 1996. From the time of the accident, to the time of examination, snow had fallen on the wreckage. The examination revealed that all major components of the airplane were accounted for at the scene. The airplane came to rest upright on an approximate magnetic heading of 100 degrees, at a ground elevation of about 3,950 feet above mean sea level (msl).

The wreckage path was identified in 1 foot increments called stations. The wreckage path was measured from the first tree impact scars, station zero, to the last piece of wreckage, an oil cooler, at station 750. Tree impact scars became progressively lower on the trees in the direction of the cabin wreckage on ascending terrain. The tree scars indicated a general direction of 100 degrees and were all at an approximate altitude of 3,950 feet msl. Several pieces of airplane cowling and sheet metal were found along the tree impact flight path.

The right propeller and spinner were found at station 285. The spinner displayed rotational damage. The left propeller was located at station 715. The propeller blades on both left and right hubs displayed similar chord-wise twisting, scratching, and bending.

The right engine was located at station 500. The engine was destroyed by impact and exhibited large cracks and holes in the crankcase. The number 6 cylinder head and piston were not

attached to the engine. A cylinder head with piston inside was located at station 550. The left engine was located at station 687 and was destroyed by impact.

Several pieces of the left wing, wing flap, flap track and wing tip were found between stations 285 and 487. A section of the left wing with auxiliary fuel tank attached, was located at station 530 and showed evidence of post crash fire. The left wing tip fuel tank was discovered at station 487. A section of the right wing with auxiliary fuel tank attached was located at station 596 with evidence of post crash fire. The right wing tip fuel tank was located at station 573.

The horizontal tail was located at station 527 and displayed evidence of post crash fire. The vertical tail was found at station 587.

The cockpit and cabin areas were destroyed and disintegrated along the wreckage debris path. The largest section of the cabin came to rest at station 632. Cockpit instruments, radios, switches and controls were ejected along the wreckage path. One control wheel was at station 606. The nose landing gear was entangled in the main cabin wreckage. Examination of the cockpit area produced no useful information due to impact damage.

Evidence of post crash fire was observed along the wreckage path.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies were performed on the pilot and the passenger by Dr. Irvin M. Sopher, Chief Medical Examiner for the State of West Virginia on November 28, 1996. In the Opinion section of the Postmortem Examination Record for the pilot, the Medical Examiner states:

"Recent cocaine usage was noted upon urine toxicologic examination."

The toxicological testing report, from the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma, revealed positive for drugs for the pilot. The report stated:

***0.126 (ug/ml, ug/g) Benzoylcegonine (Cocaine) detected in Liver Fluid ***0.170 (ug/ml, ug/g) Benzoylcegonine (Cocaine) detected in Kidney Fluid

In the Code of Federal Regulations, 14 CFR 91.17, it stated, "No person may act or attempt to act as a crewmember of a civil aircraft ... while using any drug that affects the person's faculties in any way contrary to safety..."

ADDITIONAL INFORMATION

The airplane wreckage was released on November 29, 1996 to Robert A. (Andy) Paul, a representative of the owner's insurance company.

Pilot Information

Certificate:	Commercial	Age:	38, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Helicopter; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	11/08/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	8000 hours (Total, all aircraft), 20 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N73CP
Model/Series:	414 414	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	414-0505
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	09/20/1996, Annual	Certified Max Gross Wt.:	6350 lbs
Time Since Last Inspection:	78 Hours	Engines:	2 Reciprocating
Airframe Total Time:	9358 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-J
Registered Owner:	FRANK J. MAZZEI JR.	Rated Power:	310 hp
Operator:	FRANK J. MAZZEI JR.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BKW, 2504 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	1151 EST	Direction from Accident Site:	197°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	6 Miles
Lowest Ceiling:	Broken / 600 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	11 knots / 17 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	1°C / 0°C
Precipitation and Obscuration:			
Departure Point:	SUMMERSVILLE, WV (I07)	Type of Flight Plan Filed:	IFR
Destination:	WAYNESBORO, VA (W13)	Type of Clearance:	VFR
Departure Time:	1200 EST	Type of Airspace:	Class E

Airport Information

Airport:	SUMMERSVILLE AIRPORT (I07)	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	BRIAN C RAYNER	Report Date:	03/31/1998
Additional Participating Persons:	TOM FYE; CHARLESTON, WV JOSEPH A HUTTERER; WITCHITA, KS GEORGE M HOLLINGSWORTH; RESTON, VA D. RAY MOORE; BECKLEY, WV		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).